FIRE CODE

TITLE V CHAPTER 300 FIRE CODE

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Section 1 ADOPTION OF CALIFORNIA FIRE CODE, 1998 EDITION

V-300-1.01 That certain document, except as herein amended, three (3) certified copies of which are on file in the office of the City Clerk, known as the California Fire Code, Volumes 1 and 2, including Appendix Chapters I-A, I-B, I-C, II-A, II-B, II-D, II-F, II-I, II-J, III-A, III-B, III-C, IV-A, IV-B, V-A, VI-A, VI-B, VI-C, VI-D, published by the International Fire Code Institute, being particularly the 1998 edition, as amended by the State of California, is hereby adopted by reference, as the Fire Code for the City of Milpitas.

Section 2 AMENDMENTS TO THE 1998 CALIFORNIA FIRE CODE

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- V-300-2.01 The 1998 California Fire Code is amended or changed in the following respects:
- V-300-2.02 Section 101.10 is hereby added to the California Fire Code, 1998 Edition to read as follows:
 - **101.1** Fees. The City may establish fees sufficient to recover its costs in administering this Code. The fee shall be as set forth by resolution of the City Council.
- V-300-2.03 Section 103.1.4.1 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:

- 103.1.4.1 Appeals. Whenever the Chief or his designee disapproves an application or refuses to grant a permit applied for, or when it is claimed that the provisions of this Code do not apply or that the true intent and meaning of this Code have been misconstrued or wrongly interpreted, the applicant may appeal from the decision of the Chief to the City Manager or designee within ten (10) calendar days from the date of the decision appealed. Appeals shall be carried out pursuant to the provisions of Section 5 of the Standard Procedures Chapter of the Milpitas Municipal Code. An appeal shall stay all proceedings in furtherance of the act or decision appealed unless the Chief or his or her designee whose act is appealed shall certify in writing that a stay would, in his or her opinion, cause peril to life or property. Said certificate shall contain a detailed statement of the facts out of which said peril arises and of the reasons for said opinion. The decision of the City Manager or designee shall be final.
- V-300-2.04 Section 103.2.1.2 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **103.2.1.2** Fire Prevention Bureau Personnel and Police. The Fire Marshal and authorized members of the Bureau of Fire Prevention shall have the powers of a peace officer pursuant to Penal Code Section 830.37. Other members of the Fire Department, as designated by the Chief, may issue citations for violations of fire related laws and ordinances pursuant to Penal Code Section 836.5.

When requested to do so by the Chief, the Chief of Police is authorized to assign such available police officers as necessary to assist the fire department in enforcing the provisions of this code.

- V-300-2.05 Section 103.2.1.3 is hereby added to the California Fire Code, 1998 Edition to read as follows:
 - **103.2.1.3 Assignment Of Personnel**. The Chief of the Fire Department may detail such members of the Fire Department as inspectors as shall from time to time be necessary. The Chief of the Fire Department shall recommend to the City Manager the employment of technical inspectors, who, when such authorization is made, shall be selected in accord with the Personnel Rules of the City of Milpitas.
- V-300-2.06 Section 103.3.1 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **103.3.1 Authority to Inspect**. The Bureau of Fire Prevention shall have authority to inspect buildings and premises as often as necessary, for the purpose of ascertaining and causing to be corrected any conditions which could tend to cause fire or contribute to its spread, result in an unauthorized discharge of hazardous materials, or any violation of this Code or any other law or standard affecting fire safety, life safety
- V-300-2.07 Section 103.4.4 of the California fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **Section 103.4.4 Citations**. Persons operating or maintaining an occupancy, premises or vehicle subject to this code who allow a hazard to exist or fail to take immediate action to abate a hazard on such occupancy, premises or vehicle when ordered or notified to do so by the chief shall be guilty of a misdemeanor.
- V-300-2.08 Section 103.4.7 is hereby added to the California Fire Code, 1998 Edition to read as follows:
 - 103.4.7 Abatement Of Hazard By Fire Marshal. If any person fails to comply with the orders of the Fire Marshal, or if the Fire Marshal is unable to locate the owner, operator, occupant or other person responsible within a reasonable time, the Fire Marshal or his or her authorized representative may take such steps as are necessary to abate the hazard for the protection of the public health and safety. In no event is notice necessary before abatement, when the hazard is a clear and present danger to the public welfare. All costs related to such abatement shall become a lien or special assessment on the subject property.

- V-300.2.9 Section 103.4.8 is hereby added to the California Fire Code, 1998 Edition to read as follows:
 - **103.4.8** Criminal Or Civil Penalty For Violation; Payment Of Funds To Account. Pursuant to the city's prosecutorial discretion, the City may enforce violations of the provisions of this code in any manner authorized by this section or by any other law, including but not limited to issuance of criminal citations, referral to the District Attorney, referral to other appropriate agencies, administrative actions and civil actions.
- V-300.2.10 Section 103.4.8.1 is hereby added to the California Fire Code, 1998 Edition to read as follows:
 - **Section 103.4.8.1 Misdemeanors**. Any person who violates any of the provisions of this code, any of the provisions of any written authority of the City manager or his or her duly authorized agency and representatives or any provision of any permit issued pursuant to this code shall be guilty of a misdemeanor. Each and every day, or any part thereof during which any such violation is committed, continued or allowed shall be a separate offense.
- V-300-2.11 Section 103.4.8.2is hereby added to the California Fire Code, 1998 Edition to read as follows:
 - **Section 103.4.8.2 Prosecution**. Every violation of this code shall be a misdemeanor; provided, however, that where the City Attorney or his or her duly authorized agency has determined that such action would be in the best interest of justice, the City Attorney may specify in the accusatory pleading, citation or amendment thereto that the violation shall be prosecuted as an infraction.
- V-300-2.12 Section 103.4.8.3 is hereby added to the California Fire Code, 1998 Edition to read as follows:
 - **Section 103.4.8.3 Penalty for Infraction**. Each and every violation of this code which is deemed an infraction is punishable as specified in Section I-1-4.09-1 of the Municipal Code.
- V-300-2.13 Section 103.4.8.4 is hereby added to the California Fire Code, 1998 Edition to read as follows:
 - **Section 103.4.8.4 Penalty for Misdemeanor**. Each and every violation of this code which is deemed a misdemeanor is punishable as specified in Section I-1-4.09-2 of the Municipal Code.
- V-300-2.14 Section 103.4.8.5 is hereby added to the California Fire Code, 1998 Edition to read as follows:
 - **Section 103.4.8.5 Enforcement Authority**. The following designated employee positions may enforce the provisions of this code by issuance of citations. Peace officers and persons employed in such positions are authorized to e exercise the authority provided in Penal code Section 836.5 and are authorized to issue citations for violations of this code. The designated employee positions are: the City Manager or his or her duly authorized representatives, the Fire Chief, and the Fire Marshal.
- V-300-2.15 Section 103.4.8.6 is hereby added to the California Fire Code, 1998 Edition to read as follows:
 - 103.4.8.6 Civil Penalties. Any person who intentionally, accidentally or negligently violates any provision of this code, any written authority of the City manager or his or her duly authorized agents and representatives, or any provision of an permit issued pursuant to this code may be civilly liable to the City in the sum of not less than one hundred dollars (\$100.00) but not to exceed one thousand dollars (\$1,000,000) per day for each day in which such violation occurs or continues. The City may petition the municipal or superior court to impose, assess, and recover such sums. The civil penalty provided in this section excludes inspection costs and abatement costs, is cumulative and not exclusive, and shall be in addition to all other remedies available to the City under state and federal law and local ordinances. Funds collected pursuant to this Section shall be paid to City's Fire Code enforcement account.

- V-300-2.16 Section 105.2.4 is hereby added to the California Fire Code, 1998 Edition to read as follows:
 - **105.2.4 Permit Fees**. The fee for each permit shall be as set forth by resolution of the City Council. The City may establish fees sufficient to recover its costs in administering this Article and no permit shall be issued until such fees have been paid.
- V-300-2.17 Section 105.2.5 is hereby added to the California Fire Code, 1998 Edition to read as follows:
 - **105.2.5 Violations**. Whenever any construction or installation work is being performed in violation of any plan or specification approved by the Chief, a written notice shall be issued to the responsible party to stop work on that portion of the work which is in violation. The notice shall state the nature of the violation and that no work shall be done on that portion until the violation has been corrected and has been approved by the Fire Department.
- V-300-2.18 Section 105.3 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **105.3 Application For Permit**. Applications for permits shall be made to the Bureau of Fire Prevention in such form and detail as prescribed by the Bureau. Applications for permits shall be accompanied by such plans as required by the Bureau.

In addition to the items listed in Section 105.8 a fire permit is required for the following activities:

Operation of a Day Care;

Installation or modification to fire extinguishing systems;

Installation or modification to fire alarm systems;

Installation or modification to on-site fire service lines and devices.

The Building Inspection Division shall transmit to the Fire Department a copy of each plan submitted for construction or alteration for all occupancy classifications except Group R, Division 3, when used solely as a dwelling unit and not located in an area designated by the Chief as a hazardous fire area.

- V-300-2.19 Section 105.4 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **105.4 Inspection Required**. Before a permit is issued, the Chief shall inspect and approve the receptacles, vehicles, buildings, devices premises, storage spaces or other areas to be used. In instances where laws or regulations are enforceable by departments other than the Fire Department, joint approval shall be obtained from all departments concerned.

No final inspection under this code, as to all or any portion of the development, shall be deemed completed and no certificate of occupancy shall be issued unless and until the requirements imposed by this code have been completed and the final approval thereof, by the Fire Department, has been given as provided herein and all inspection fees paid.

- V-300-2.20 Section 105.8.c.7 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **105.8.c.7.** Compressed gases. To store, use or handle at normal temperatures and pressures compressed gases in excess of the amounts listed in the Milpitas Fire department guidelines. When the compressed gases in use or storage exceed the amounts a permit is required to install, repair, abandon, remove, place temporarily out of service, close or substantially modify a compressed gas system.

EXCEPTIONS:

- 1. Routine maintenance.
- 2. For emergency repair work performed on an emergency basis, application for permit shall be made within two working days of commencement of work.

The permit applicant shall apply for approval to close storage, use or handling facilities at least 30 days prior to the termination of the storage, use or handling of compressed or liquefied gases. Such application shall include any change or alteration of the facility closure plan filed pursuant to Section 8001.13. This 30-day period may be waived by the chief if there are special circumstances requiring such waiver.

V-300-2.21 Section 105.8.c.9 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:

105.8.c.9. Cryogens. Except where federal or state regulations apply and except for fuel systems of the vehicle, to produce, store or handle cryogens in excess of the amounts listed the Milpitas Fire department guidelines, to install a cryogenic vessel or piping system for the storage or distribution of cryogens. See Article 75.

V-300-2.22 Table 105-C of the 1998 California Fire Code is amended to add the following to the type and amount of gas permitted.

Type of Hazardous Material Amount "Moderately Toxic Gases" See No. c.7

V-300-2.23 Section 105.9 is hereby added to the California Fire Code, 1998 Edition, to read as follows:

105.9 New Materials, Processes Or Occupancies Which May Require Permits. The City Manager and the Chief of the Fire Department shall act as a committee to determine and specify, after giving affected persons an opportunity to be heard, any new materials, processes or occupancies, which shall require permits, in addition to those now enumerated in said Code. The Chief shall post such list in a conspicuous place in his office, and distribute copies thereof to interested persons.

V-300-2.24 Section 207-F of the California Fire Code, 1998 Edition, is amended by adding the definition for Fire Marshal as follows:

FIRE MARSHAL is the Chief of the Bureau of Fire Prevention.

V-300-2.25 Section 209-H of the California Fire Code, 1998 Edition, is amended by adding the definition for Hazardous Materials Business Plan as follows:

HAZARDOUS MATERIALS BUSINESS PLAN is a written plan containing at a minimum the information required pursuant to section 25500 et seq. of the Health and Safety Code.

V-300-2.26 Section 211-J of the California Fire Code, 1998 Edition, is amended with respect to the definition of Jurisdiction as follows:

JURISDICTION is the City of Milpitas.

V-300-2.27 Section 214-M of the California Fire Code, 1998 Edition, is amended by adding the definition for Moderately Toxic Gas as follows:

MODERATELY TOXIC GAS is a chemical or substance that has a median lethal concentration (LC50) in air more that 2000 parts per million but not more than 5000 parts per million by volume of gas or vapor, when administered by continuous inhalation for an hour, or less if death occurs within one hour, to albino rats weighing between 200 and 300 grams each.

V-300-2.28 Section 220-S of the California Fire Code, 1998 Edition, is amended by adding the definition for Storage/Use Facility and Storage/use System as follows:

STORAGE/USE FACILITY is a building, portion of a building, or exterior area used for the storage, use, or handling of hazardous materials where the quantity of hazardous materials is equal to or greater than the permit amounts specified in the Milpitas Fire Department guidelines.

STORAGE/USE SYSTEM is any one or combination of tanks, sumps, waste treatment facilities, pipes, vaults or other portable or fixed containers, and their secondary containment systems which are used, or designed to be used, for the storage, use, or handling of hazardous materials.

- Section 220-S of the California Fire Code, 1998 Edition, is amended by deleting the definition for Storage Facility.
- V-300-2.29 Section 902.2.1.2 is hereby added to the California Fire Code, 1997 Edition, to read as follows:
 - **902.2.1.2 Adjacent Access**. No source of access from lands adjoining a property to be developed shall be considered unless there is obtained the irrevocable and unobstructed right to use same.
- V-300-2.30 Section 1001.11 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **1001.11** Central Control Stations In High Rise Structures. The equipment and furnishings listed below shall be installed in Central Control Stations for the exclusive use of Fire Department personnel. The Chief may require additional equipment and furnishings or replacement of items that are unreliable or obsolete.
 - 14. All items listed in Sec. 403.6.1 of the California Building Code.
 - 15. A second telephone with a direct connection to the public telephone system.
 - 16. A table with chairs (size and number of chairs to be determined by the Chief).
 - 17. A locking key box, acceptable to the Chief, large enough for 10 sets of master keys.
 - 18. Ten (10) sets of master keys for the building.
 - 19. A complete set of electrical, mechanical, and plumbing plans for the building.
- V-300-2.31 Section 1001.12 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **1001.12 Special Provisions For Group B Office Buildings And Group R, Division 1 Occupancies**. All Group B office buildings and Group R, Division 1 Occupancies, each having floors used for human occupancy located more than 60 feet above the lowest level of Fire Department vehicle access, or more than 4 stories shall comply with the provisions of California Building Code, 1997 Edition, Section 403.
- V-300-2.32 Section 1003.2.2 (6) is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - 6. In all buildings hereafter constructed three or more stories, or 35 feet in height, or 10,000 square feet or more in area or having a Fire Flow of greater than 2,000 gallons per minute. Appendix III-A shall be used as the basis for determining Fire Flow.
- V-300-2.33 Section 1003.1.1.2 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **1003.1.1.2** Fire Department Sprinkler Connection. The connection through which the Fire Department can pump water in the sprinkler system shall not be attached to the building and shall be located as near as practicable to a public fire hydrant.
- V-300-2.34 Section 1003.1.1.3 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **1003.1.1.3 Additions, Alterations Or Repairs**. The provisions of this section shall apply to all new structures and to existing structures to which additions, alterations or repairs are made in excess of fifty percent of the floor area within a twelve month period.
- V-300-2.35 Section 1003.1.1.4 is hereby added to the California Fire Code, 1998 Edition, to read as follows:

1003.1.1.4 Floor Area - Defined. For the purpose of determining the requirement for automatic fire sprinkler protection "floor area" shall mean the sum of the square footage to include basement and all stories within the surrounding exterior walls of the structure. Floor area shall also include the sum of all horizontal projections of the roof or other projections beyond the exterior walls of the structure. For structures, or portions of structures, not provided with exterior walls, the floor area shall be the sum of the area under the horizontal projections of the roof.

For the purpose of this Section, Area Separation Walls shall not define separate buildings.

EXCEPTION: Four hour rated area separation walls with no openings.

V-300-2.36 Section 5101.8.2 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:

Section 5101.8.2 Pass-Throughs.

- V-300-2.37 Section 5101.8.2.1 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **5101.8.2.1 Pass-throughs in existing corridors**. Self-closing doors having a fire-protection rating of not less than one hour shall separate pass-throughs from existing corridors. Pass-throughs shall be constructed as required for corridors. See also Section 5103.3.2.
- V-300-2.38 Section 5101.8.2.2 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **5101.8.2.2 Pass-throughs in new corridors.** When pass-throughs are provided, self closing doors having a fire protection rating of not less than one hour shall be installed between the pass-throughs and either side unless one side is an approved storage room or area. The pass-throughs shall be fully enclosed with wall protection as required for the exit corridor or to storage cabinet requirements when exit corridor is not a factor. Pass-throughs shall be protected by an approved automatic fire-extinguishing systems, and an exhaust ventilation system pursuant to the Uniform Mechanical Code. (This design criteria is suitable for any occupancy using an HPM pass-through).
- V-300-2.39 Section 5101.10.4.3.1 of the California Fire Code, 1998 Edition, is amended in its entirety to read as follows:
 - **5101.10.4.3.1 Gas Detection System.** When hazardous production material gas is used or dispensed and the physiological warning properties for the gas are at a higher level than the accepted permissible exposure limit for the gas, a continuous gas-detection system shall be provided to detect the presence of a short-term hazard condition. Continuous gas-detection systems shall be provided in rooms or areas which are not continuously occupied, and in which HPM gases are stored, used or dispensed, regardless of the physiological warning properties of the gas. When dispensing occurs or flammable gases or vapors could be present in quantities in excess of ten percent (10%) of the lower explosive limit, a continuous gas-detection system shall be provided. The detection system shall be connected to the emergency control station.
- V-300-2.40 Section 5204.5.2 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **5204.5.2 Maximum Capacity Within Established Limits**. Within the City of Milpitas, the aggregate capacity of any one installation shall not exceed 183,000 cubic feet.
- V-300-2.41 Section 6301 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **6301 Scope**. Refrigeration unit and system installations having a refrigerant circuit containing more than 220 pounds (100 kg) of Group A1 or 30 pounds (13.6 kg) of any other group refrigerant shall be in accordance with Article 63 and the Mechanical Code. See the Mechanical Code for refrigerant group descriptions. See also Sections 8001.1.2, 8001.16.7 and 8002.

- EXCEPTION: The chief is authorized to exempt temporary or portable installations.
- V-300-2.42 Section 7401.6.4 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **7401.6.4 Securing Compressed Gas Containers, Cylinders And Tanks**. Compressed gas containers, cylinders and tanks shall be secured to prevent falling due to contact, vibration or seismic activity. Securing compressed gas containers and tanks shall be by one of the following methods:

EXCEPTION: Compressed gas containers, cylinders and tanks in the process of examination, filling, transport or servicing.

- 1. Securing containers, cylinders and tanks to a fixed object with one or more non-combustible restraints. Additional restraints may be required by the Chief when hazardous conditions exist.
- 2. Securing containers, cylinders and tanks on a cart or other mobile device designed for the movement of compressed gas containers, cylinders or tanks.
- 3. Nesting of compressed gas containers, cylinders, and tanks at container filling or servicing facilities or in seller's warehouses not accessible to the public. Nesting shall be allowed provided the nested containers, cylinders or tanks, if dislodged, do not obstruct the required means of egress.
- 4. Securing of compressed gas containers, cylinders and tanks to or within a rack, framework, cabinet or similar assembly designed for such use.
- V-300-2.43 Section 7701.7.2 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **7701.7.2** Limits established by law. Storage of explosive materials is prohibited within any portion of the City of Milpitas, now or hereafter existing.

EXCEPTION: Gun Powder and Small Arms Primers.

V-300-2.44 Section 7802.3 of the California Fire Code, 1998 Edition, is amended in its entirety to read as follows:

7802.3 Prohibition. The storage, use and handling of fireworks are prohibited. Exceptions:

- 1. Storage and handling of fireworks are allowed as required for explosives in Article 77.
- 2. The use of fireworks for display is allowed as set forth in Section 7802.4
- 3. The use of fireworks for religious ceremonial purposes is allowed in accordance with special conditions when approved by the Chief.
- V-300-2.45 Section 7901.1.3 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **7901.1.3 General Safety**. The storage, use, dispensing, mixing, and handling of flammable and combustible liquids shall be done in a manner so as not to increase the risk of an unauthorized release. In the absence of direct regulation of this code, other appropriate regulations, standards, laws ordinances or other nationally recognized and accepted methods of good practice may be applied to define acceptable practices. In the event of conflicting authorities, the most restrictive shall apply.
- V-300-2.46 Section 7901.3.2 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:

- **7901.3.2 Plans**. Plans shall be submitted with each application for a permit to store liquids outside of buildings in drums or tanks. The plans shall indicate the method of storage, quantities to be stored, distances from buildings and property lines, accessways, fire-protection facilities, and provisions for spill control and secondary containment.
- V-300-2.47 Section 7901.8 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:

7901.8 When required, rooms, buildings or areas used for storage, dispensing, use, mixing or handling of flammable and combustible liquids shall be provided with spill control and secondary containment in accordance with Sections 8003.1.3, 8004.2.2.5, 8004.2.3.6, and 8004.3.4. See also section 7901.14.

V-300-2.48 Section 7901.11.1.1 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:

7901.11.1.1 General. Piping, valves, fittings and related components intended for use with flammable and combustible liquids shall be designed and fabricated from suitable materials having adequate strength and durability to withstand the pressures, structural stresses and exposures to which they can be subjected. Such equipment shall be in accordance with nationally recognized engineering standards, be listed for the application or be approved by the chief. See Article 90, Standards a 2.2, a 2.3, a 2.4, a 2.5, a 2.6, u1.10, u 1.11, Nonmetallic piping, if used, shall be installed in accordance with the manufacturer's installation instructions.

When required by the Chief, piping used for conveying flammable or combustible liquids shall be provided with containment. Containment includes but is not limited to double walled piping.

- V-300-2.49 Section 7901.13 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **7901.13 Monitoring**. Monitoring of flammable and combustible liquid storage/use systems shall be provided on a regular or continuous basis, The monitoring system and its frequency shall be included in the Hazardous Materials Business Plan if otherwise required or shall be in writing for approval by the chief. Monitoring methods may include but are not limited to the following;
 - 1. Visual inspection, no less than weekly. (requires trained personnel and documentation).
 - 2. Continuous leak detection and alarm system.
 - 3. Any system which will provide continuous, reliable monitoring of the primary container(s) capable of alerting occupants to an alarm or trouble condition; all systems are subject to approval by the Chief.
- V-300-2.50 Section 7901.14 is hereby added to the California Fire Code, 1998 Edition, to read as follows:

7901.14 Containment requirements. A containment system shall be required for all flammable and combustible liquids. Construction shall be substantial, capable of safely and securely containing a sudden release without discharge. Design criteria shall be performance oriented and constructed of compatible materials to resist degradation and provide structural and functional integrity for a period of time reasonably necessary to ensure detection, mitigation, and repair of the primary system.

In the case of an installation with one primary container, the containment system shall be large enough to contain at least 100 percent of the volume of the primary tank. In the case of multiple primary tanks, the containment system shall be large enough to contain 150 percent of the volume of the largest primary tank placed in it, or 10 percent of the volume of the aggregate internal volume of all primary tanks, whichever is greater.

V-300-2.51 Section 7902.2.2.1 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:

7902.2.2.1 Locations where aboveground tanks are prohibited. Storage of Class I and II liquids in aboveground tanks outside of buildings is prohibited within any portion of the City of Milpitas, now or hereafter existing.

EXCEPTION:

- 1. Double wall steel aboveground tanks used for the storage of Class II liquids including integral diesel fuel storage tanks for generators or fire pumps which are listed and limited to capacity of 660 gallons. Tanks shall be located a minimum of ten (10) feet from any building and a minimum of twenty (20) feet from a property line which is or can be built upon.
- 2. Protected aboveground storage tanks storing diesel fuel that is used to power generators or fire pumps shall not exceed 4, 000 gallons individual capacity and 16,000 gallon aggregate capacity. Thanks shall be installed in accordance with Appendix II-F as amended.
- 3. As approved by the Fire Chief, aboveground storage tanks used for dispensing fuel for motor vehicles shall be installed and maintained in accordance with Appendix II-F as amended.
- V-300-2.52 Section 8001.1.1 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:

8001.1.1 General. Prevention, control and mitigation of dangerous conditions related to storage, dispensing, use and handling of hazardous materials and information needed by emergency response personnel shall be in accordance with Article 80.

EXCEPTIONS:

- 1. The quantities of alcoholic beverages, medicines, foodstuffs and cosmetics, containing not more than 50 percent by volume of water-miscible liquids and with the remainder of the solutions not being flammable, in retail sales occupancies are unlimited when packaged in individual containers not exceeding 4 liters.
- 2. Application and release of pesticide products and materials intended for use in week abatement, erosion control, soil amendment or similar applications when applied in accordance with the manufacturer's instructions and label directions.

This article shall include those parts of Chapter 6.95 (commencing with Sec. 25500) and Chapter 6.7 (commencing with Sec. 25280) and Chapter 6.75 (commencing with Sec. 25299) of the Health and Safety Code which impose additional requirements or are more restrictive.

Any person who violates Health and Safety Code § 25507 shall be subject to the penalties specified in Health and Safety Code §25515. The violation of any other Health and Safety Code Sections specified in this paragraph shall constitute a misdemeanor.

The storage, dispensing, mixing, handling and use of hazardous materials shall be done in a manner so as not to increase the risk of an unauthorized release. In the absence of direct regulation of this code, other appropriate regulations, standards, laws ordinances or other nationally recognized and accepted methods of good practice may be applied to define acceptable practices. In the event of conflicting authorities, the most restrictive shall apply.

V-300-2.53 Section 8001.2.2 of the California Fire Code, 1998 Edition, is amended by adding the following definitions thereto:

CONTINUOUS GAS DETECTION SYSTEM.

Continuous gas detection system is a gas detection system where the analytical instrument is maintained in continuous operation and sampling is performed without interruption. Analysis is allowed to be performed on a cyclical basis at intervals not to exceed 30 minutes. In occupied areas where air is recirculated and not exhausted to a treatment system (e.g. breathing zone), the chief may require a cyclical basis at intervals not to exceed 5 minutes. The gas detection system shall be able to detect the presence of a gas at or below the permissible exposure limit in occupiable areas and at or below ½ IDLH (or 0.05 LC 50 if no established IDLH) in unoccupiable areas.

MAXIMUM THRESHOLD QUANTITY (Max TQ) is the maximum quantity of a moderately toxic or toxic gas which may be stored in a single vessel before a more stringent category of regulation is applied. The following equation shall be used to calculate the Max TQ:

Max TQ (pounds) = LC50 (ppm) x 2 lb.

REDUCED FLOW ORIFICE is a device located in the gas cylinder valve that restricts the maximum flow rate from the cylinder.

- V-300-2.54 Section 8001.3.2 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **8001.3.2** Hazardous Materials Management Plan. When required by the Chief, each application for a permit shall include a hazardous materials management plan (HMMP). The location of the HMMP shall be posted adjacent to permits when an HMMP is provided. The HMMP shall include a facility site plan designating the following:
 - 1. Storage and use areas,
 - 2. Maximum amount of each material stored or used in each area,
 - 3. Range of container sizes,
 - 4. Locations of emergency isolation and mitigation valves and devices,
 - 5. Product conveying piping containing liquids or gases, other than utility-owned fuel gas lines and low-pressure fuel gas lines,
 - 6. On and off positions of valves for valves which are of the self-indicating type, and
 - 7. Storage plan showing the intended storage arrangement, including the location and dimensions of aisles.

The plans shall be legible and approximately to scale. Separate distribution systems are allowed to be shown on separate pages.

The applicant may use a copy of an up to date Hazardous Materials Business Plan, which has been approved under Health and Safety Code, Chapter 6.95, Sections 25500 through 25545, and the regulations adopted thereunder, to satisfy the requirements for an HMMP.

- V-300-2.55 Section 8001.3.3 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **8001.3.3** Hazardous materials inventory statement. When required by the chief, owners or operators of storage/use facilities shall submit a hazardous materials inventory statement (HMIS). The HMIS shall include the information required for a hazardous materials inventory statement prepared under Health and Safety Code, Chapter 6.95, Sections 25500 through 25545, and Title 19, Division 2, Chapter 3. A hazardous materials/waste registration form may be submitted for materials below the threshold limit of Chapter 6.95, Sections 25500 through 25545, and Title 19, Division 2, Chapter 3
- V-300-2.56 Section 8001.4.2.1 is hereby added to the California Fire Code, 1998 edition, to read as follows:

- **8001.4.2.1 Reduced Flow Orifice**. All containers of materials other than lecture bottles classified as Highly Toxic and having a vapor pressure exceeding 29 psia shall be equipped with a flow limiting orifice when available. If a flow restricting orifice is not available, the container shall be used with a flow limiting device. All flow limiting devices shall be part of the valve assembly and visible to the eye when possible; otherwise, they shall be installed as close as possible to the cylinder source.
- V-300-2.57 Section 8001.4.3.2 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **8001.4.3.2 Design and Construction**. Piping, tubing, valves, fittings and related components used for hazardous materials shall be in accordance with the following:
 - 1. Piping, tubing, valves, fittings and related components shall be designed and fabricated from materials compatible with the material to be contained and shall be of adequate strength and durability to withstand the pressure, structural and seismic stress, and exposure to which they are subject.
 - 2. Piping and tubing shall be identified in accordance with nationally recognized standards (see Article 90, Standard a.2.1) to indicate the material conveyed.
 - 3. Emergency shutoff valves shall be identified and the location shall be clearly visible and indicated by means of a sign, and
 - 4. Backflow-prevention or check valves shall be provided when the backflow of hazardous materials could create a hazardous condition or cause the unauthorized discharge of hazardous materials.
 - 5. Secondary containment shall be provided for piping of hazardous materials. Secondary containment includes, but is not limited to double walled piping.

Exceptions:

- 1. Secondary containment is not required for toxic corrosive gases if the piping is constructed of inert materials.
- 2. Piping under sub-atmospheric conditions if the piping is equipped with an alarm and fail safe to close valve activated by a loss of vacuum.
- 6. Expansion chambers shall be provided between valves whenever the regulated gas may be subjected to thermal expansion. Chambers shall be sized to provide protection for piping and instrumentation and to accommodate the expansion of regulated materials.
- V-300-2.58 Section 8001.4.3.3 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **8001.4.3.3** Additional Regulation for Supply Piping for Health Hazard Materials. Supply piping and tubing for gases and liquids having a health hazard ranking of 3 or 4 in accordance with UFC Standard 79-3 shall also be in accordance with the following:

- 1. Piping and tubing utilized for the transmission of highly toxic or toxic material shall have welded connections throughout unless an exhausted enclosure is provided if the material is a gas, or the piping is provided with a receptor for containment if the material is a liquid.
- 2. Piping and tubing shall not be located within corridors, within any portion of a means of egress required to be enclosed in fire resistive construction or in concealed spaces in areas not classified as Group H Occupancies.
 - Exception: Piping and tubing within the space defined by the walls of corridors and floor or roof above or in concealed space above other occupancies when installed in accordance with the Building Code as required for Group H, Division 6 Occupancies. See Section 307.11.6.2.
- 3. Where gases or liquids are carried in pressurized piping above 15 psig (103.4 kPa), excess flow control shall be provided. Where the piping originates from within a hazardous material storage room or area, the excess flow control shall be located within the storage room or area. Where the piping originates from a bulk source, the excess flow control shall be located as close to the bulk source as practical, and
- 4. Readily accessible manual or automatic remotely activated fail-safe emergency shutoff valves shall be installed on supply piping and tubing at the following locations:
 - 4.1 The point of use, and
 - 4.2 The tank, cylinder or bulk source.
- V-300-2.59 Section 8001.4.7.4 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.4.7.4 Annual Maintenance**. All safety control systems at a facility shall be maintained in good working condition and tested not less frequently than annually. Maintenance and testing shall be performed by persons qualified to perform the maintenance and tests. Maintenance records and certifications shall be available to any representative of the Fire Department for inspection upon request.
- V-300-2.60 Section 8001.5.2.2 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **8001.5.2.2 Notification**. The Chief shall be notified immediately when a release or an unauthorized discharge escapes containment or is contained but presents a threat to health or property or becomes reportable under state, federal or local regulations.
- V-300-2.61 Section 8001.5.2.5 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **8001.5.2.5 Responsibility for Cleanup**. The person, firm, or corporation responsible for an unauthorized discharge shall institute and complete all actions necessary to remedy the effects of such unauthorized discharge, whether sudden or gradual, at no cost to the jurisdiction. When deemed necessary by the Chief, cleanup may be initiated by the Fire Department or by an authorized individual or firm. Costs associated with such cleanup shall be borne by the owner, operator or other person responsible for the unauthorized discharge.

The Fire Department may cause the removal of hazardous materials on public or private property without any prior demand upon a person who deposited, allowed to deposit or caused the deposit of the same or the owner, occupancy or possessor of private property unless the Chief or his authorized representative determines that the immediate removal of said hazardous materials and the property disposition thereof can be made by the depositor thereof or the owner, occupant or possessor of private property. If the Chief or his authorized representative determines that the immediate removal of said hazardous materials and the proper disposition thereof can be made by the depositor thereof or by the owner, occupancy or possessor of private property, it shall be the duty of the person who deposited, allowed the deposit or caused the deposit of said hazardous material or the owner, occupancy or possessor of private property to immediately remove and promptly dispose of said hazardous materials at his own expense.

The cost of removal of hazardous material to be paid by the depositor or by the owner, occupancy or possessor of the property shall, without limitation, include actual labor costs of City personnel, including fringe benefits; administrative overhead at the amount as may be determined by resolution of the City Council; costs of replacing contaminated equipment; cost of containment or neutralizing materials obtained directly by the City; cost of contamination disposal; and cost of contract labor and materials.

In addition to such other remedies with may be allowed by law, the Chief or City Attorney may institute appropriate proceedings in a court of competent jurisdiction to recover the cost of removal of hazardous materials from any person who deposits, allows, or causes to be deposited hazardous materials and the owner, occupancy or possessor of private property on which said hazardous materials are deposited.

V-300-2.62 Section 8001.7 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:

8001.7 Identification Signs. Visible hazard identification signs as specified in UFC Standard 79-3 shall be placed on stationary aboveground tanks and at entrances to locations where hazardous materials are stored, dispensed, used or handled in quantities requiring a permit. Signs shall be provided at specific entrances and locations designated by the Chief.

EXCEPTION: The Chief may waive this requirement in special cases when consistent with safety if the owner or operator has submitted a hazardous materials management plan and hazardous materials inventory statement. See Sections 8001.3.2 and 8001.3.3. Individual containers, cartons or packages shall be conspicuously marked or labeled in accordance with nationally recognized standards.

Rooms or cabinets containing compressed gases shall be conspicuously labeled COMPRESSED GAS.

Signs shall not be obscured or removed.

Signs shall be in English as a primary language or in symbols allowed by this code. Signs shall be durable.

The size, color and lettering shall be in accordance with nationally recognized standards.

V-300-2.63 Section 8001.11.8 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:

8001.11.8 Separation of incompatible materials. Incompatible materials in storage and storage of materials incompatible with materials in use shall be separated. Separation shall be accomplished by:

- 1. Segregating incompatible hazardous materials by a distance of not less than 20 feet(6096 mm) and an independent containment system, or secondary containment, or
- 2. Isolating incompatible materials storage by a noncombustible partition extending not less than 18 inches (457.2 mm) above and to the sides of the stored material,
- 3. Storing liquid and solid materials in hazardous materials storage cabinets (see Section 8001.3.2), or
- 4. Storing compressed gases in gas cabinets or exhausted enclosures in accordance with Sections 8003.3.1.3.2 and 8003.3.1.3.3.

Materials which are incompatible shall not be stored within the same cabinet or exhausted enclosure.

V-300-2.64 Section 8001.11.10 is hereby added to the California Fire Code, 1998 Edition, to read as follows:

8001.11.10 Monitoring: Monitoring of primary container(s) of liquid and solid hazardous materials in use or storage facilities shall be provided on a regular or continuous basis, but no less than weekly. The monitoring system and its frequency shall be included in the Business Plan if not otherwise required or shall be in writing for approval by the Chief. Monitoring methods may include but are not limited to the following:

- 1. Visual inspection (requires trained personnel and documentation).
- 2. Continuous leak detection and alarm system.
- 3. Any system which will provide continuous, reliable monitoring of the primary container(s) capable of alerting occupants to an alarm or trouble condition; all systems are subject to approval by the chief.
- V300-2.65 Section 8001.11.11 is hereby added to the California Fire Code, 1998 Edition, to read as follows:

8001.11.11 Containment Requirements. A containment system shall be required for all hazardous materials which are liquids or solids at normal temperature and pressure (NTP). Construction shall be substantial, capable of safely and securely containing a sudden release without discharge. Design criteria shall be performance oriented and constructed of compatible materials to resist degradation, and provide structural and functional integrity for a period of time reasonably necessary to ensure detection, mitigation, and repair of the primary system. The chief may require outside containment areas to be covered with a roof or canopy for protection from the environment.

In the case of an installation with one primary container, the containment system shall be large enough to contain at least 100 percent of the volume of the primary tank. In the case of multiple primary tanks, the containment system shall be large enough to contain 150 percent of the volume of the largest primary tank placed in it, or 10 percent of the volume of the aggregate internal volume of all primary tanks, whichever is greater.

V-300-2.66 **Section 8001.12.1.1** is hereby added to the California Fire Code, 1998 Edition, to read as follows:

- **8001.12.1.1 Leak Testing**. Responsible persons shall cause containers of highly toxic, toxic and moderately toxic gases to be tested for leaks immediately upon delivery and again immediately prior to departure of such containers from facilities. Testing shall be approved by the Chief in accordance with appropriate nationally recognized industry standards and practices if any. Appropriate remedial actions shall be undertaken when leaks are detected.
- V-300-2.67 Section 8001.13 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - 8001.13 Facility and Storage/Use System Closure.
 - **8001.13.1 Temporarily out-of-service facilities and storage/use systems**. Facilities which are temporarily out of service shall continue to maintain a permit and be monitored and inspected.
 - **8001.13.2 Permanently out-of-service facilities and storage/use systems.** Facilities for which a permit is not kept current or is not monitored and inspected on a regular basis shall be deemed to be permanently out of service and shall be closed in accordance with Section 8001.13.3.
 - **8001.13.3 Plan**. The permit holder or applicant shall submit a plan to the Fire Department to terminate storage, dispensing, handling or use of hazardous materials at least 30 days prior to facility or storage/use system closure. The plan shall demonstrate that hazardous materials which were stored, dispensed, handled or used in the facility have been transported, disposed of or reused in a manner that eliminates the need for further maintenance and any threat to public health and safety. Such plan shall be submitted in accordance with Section 8001.3.1.
- V-300-2.68 Section 8001.16.6 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - 8001.16.6 Highly Toxic and Toxic Gases
- V-300-2.69 Section 8001.16.6.1 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.6.1 General**. Highly toxic and toxic gases shall be in accordance with Sections 8001, 8001.16.6.1, 8001.16.7.1, and 8001.16.7.4.2.
- V-300-2.70 Section 8001.16.6.1.1 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.6.1.1 Automatic Shut Off Valve**. An automatic valve which is of a fail safe to close design shall be provided to shut off the supply of toxic gases upon activation of the gas detection system.

An automatic valve which is of fail safe to close design shall be provided to shut-off the supply of highly toxic gases for any of the following:

- 1. Activation of a fire alarm.
- 2. Activation of the gas detection system (PEL level in occupiable areas; ½ IDLH (or 0.05 LC 50 if no established IDLH) in unoccupiable areas.
- 3. Failure of emergency power.
- 4. Manually, from remote locations.
- 5. Failure of primary containment.
- 6. Failure of required exhaust flow ventilation rate.
- V-300-2.71 Section 8001.16.6.1.2 is hereby added to the California Fire

Code, 1998 Edition, to read as follows:

8001.16.6.1.2 Emergency Control Station. For highly toxic gases, signals from emergency equipment shall be transmitted to an emergency control station which is continually staffed by trained personnel.

- V-300-2.72 Section 8001.16.6.1.3 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.6.1.3 Seismic Shut Off Valve**. An automatic shut off valve which is of fail safe to close design shall be provided to shut off the supply of toxic or highly toxic gases.
- V-300-2.73 Section 8001.16.6.1.4 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.6.1.4 Fire Extinguishing Systems**. Indoor storage and use areas and exterior use areas and storage buildings shall be protected by an automatic fire sprinkler system in accordance with Section 8003.1.6.
- V-300-2.74 Section 8001.16.6.1.5 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.6.1.5** Local Gas Shut Off. **8001.14.6.1.5** Local Gas Shut Off. Manual activation controls shall be provided at locations near the point of use and near the source, as approved by the Chief.

The Chief may require additional controls at other places, including, but not limited to, the entry to the building, storage or use areas, and emergency control stations.

Manual activated shut-off valves shall be of "fail safe to close design".

- V-300-2.75 Section 8001.16.6.6.1.6 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.6.1.6 Breathing Apparatus**. Two self contained breathing apparatus shall be provided for facilities handling highly toxic and corrosive gases. When the self contained breathing apparatus would be inadequate protection due to the nature of the gases present, other appropriate protective equipment shall be provided. They shall be suitable for use with the material present and shall be in a conspicuously marked location immediately near the area where materials are present, that provides safety for those expected to don the apparatus.
- V-300-2.76 Section 8001.16.6.1.7 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.6.1.7. Maximum Threshold Quantity (Max. TQ)**. When the quantity of a toxic gas exceeds its' Max TQ, the storage shall be subject to the additional requirements of Section 8001.16.6 for highly toxic gases.
- V-300-2.77 Section 8001.16.6.1.8 is hereby added to the California Fire Code, 1998 Edition to read as follows:
 - **8001.16.1.8 Exhaust Ventilation Monitoring**. For highly toxic gases and toxic gases exceeding threshold quantities, a continuous monitoring system shall be provided to assure that the required exhaust ventilation rate is maintained. The monitoring system shall initiate a local alarm. The alarm shall be both visual and audible and shall be designed to provide warning both inside and outside of the interior storage, use, or handling area.
- V-300-2.78 Section 8001.16.6.1.9 is hereby added to the California Fire Code, 1998 Edition to read as follows:
 - **8001.16.6.1.9** Emergency Response Plan. If the preparation of an emergency response plan for the facility is not required by any other law, responsible persons shall prepare, or cause to be prepared, and filed with the Fire Chief, a written emergency response plan. If the preparation of an emergency response plan is required by other law, a responsible person shall file a copy of the plan with the Fire Chief.
- V-300-2.79 Section 8001.16.6.1.10 is hereby added to the California Fire Code, 1998 Edition to read as follows:

- **8001.16.6.1.10** Emergency Response Team. Responsible persons shall be designated the on-site emergency response team and trained to be liaison personnel for the fire department. These persons shall aid the Fire Department in preplanning emergency responses, identifying locations where regulated materials are stored, handled and used, and be familiar with the chemical nature of such material. An adequate number of personnel for each work shift shall be designated.
- V-300-2.80 Section 8001.16.6.1.11 is hereby added to the California Fire Code, 1998 Edition to read as follows:
 - **8001.16.6.1.11 Emergency Drills**. Emergency drills of the on-site emergency response team shall be conducted on a regular basis but not less than once every three months. Records of drills conducted shall be maintained.
- V-300-2.81 Section 8001.16.6.1.12 is hereby added to the California Fire Code, 1998 Edition to read as follows:
 - **8001.16.6.1.12 Protective Plugs/Caps**. Materials regulated shall have their protective plugs and caps in place at all times unless and until the material is properly placed into use.
- V-300-2.82 Section 8001.16.6.2 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.6.2 Indoor Storage**. Indoor storage of toxic gases in amounts exceeding 10 cubic feet per control area, and highly toxic gases in any amount shall be in accordance with Sections 8001.16.6.1, 8003.3.1, 8004.4, and 8001.16.7.
- V-300-2.83 Section 8001.16.6.3 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.6.3 Outdoor Storage**. Outdoor storage of toxic gases in amounts exceeding 10 cubic feet per outdoor area, and highly toxic gases in any amount shall be in accordance with Sections 8001.16.6.1, 8003.3.2, 8001.16.7 and 8004.4.
- V-300-2.84 Section 8001.16.6.4 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.6.4 Indoor Use**. Indoor use of toxic gases in amounts exceeding 10 cubic feet per control area and highly toxic gases in any amount shall be in accordance with Sections 8001.16.6.1, 8001.16.6.2, 8004.2.3.7, 8004.4, and 8001.16.7.
- V-300-2.85 Section 8001.16.6.5 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.6.5 Outdoor Use**. Outdoor use of toxic gases in amounts exceeding 10 cubic feet per outdoor area and highly toxic gases in any amount shall be in accordance with Sections 8001.16.6.1, 8001.16.6.3, 8004.3.6, 8001.16.7, and 8004.4.
- V-300-2.86 Section 8001.16.7 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - 8001.16.7 Moderately Toxic Gases Including Those Used As Refrigerants.
- V-300-2.87 Section 8001.16.7.1 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.7.1 General**. Moderately toxic gases including those used as refrigerants shall be in accordance with Sections 8001, 8001.16.6.1.4, 8001.16.7.1, 8001.16.6.1.9, 8001.16.6.1.10, 8001.16.6.1.11, 8001.16.6.1.12, 8003.3.1.3, 8003.3.2.2, 8003.3.2.3, 8003.3.2.4, 8003.3.3.
- V-300-2.88 Section 8001.16.7.1.1 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.7.1.1** Moderately Toxic Gases With An LC 50 Equal To Or Less Than 3000 Parts Per Million. Notwithstanding the hazard class definition in section 214, moderately toxic gases with an LC 50 less than 3000 parts per million shall comply with the requirements Section 8001.16.6 for toxic gases.

- V-300-2.89 Section 8001.16.7.1.2 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.7.1.2 Maximum Threshold Quantity (Max. TQ)**. When the quantity of moderately toxic gas exceeds its' Max TQ, the storage shall be subject to the additional requirements of Section 8001.16.6 for toxic gases.
- V-300-2.90 Section 8001.16.7.2 is hereby added to the California Fire Code, 1998 Edition, to read as follows:

8001.16.7.2 Indoor Storage

- V-300-2.91 Section 8001.16.7.2.1 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.7.2.1 Exempt Amounts**. Indoor storage of moderately toxic gases in excess of 20 cubic feet per area bounded by not less than a one-hour fire resistive occupancy separation shall be in accordance with Sections 8001.16.7.1, 8001.16.7.2, and 8003.3.1.6.
- V-300-2.92 Section 8001.16.7.3 is hereby added to the California Fire Code, 1998 Edition, to read as follows:

8001.16.7.3 Outdoor Storage.

- V-300-2.93 Section 8001.16.7.3.1 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.7.3.1 Exempt Amounts**. Outdoor storage of moderately toxic gases in excess of 20 cubic feet per outdoor area shall be in accordance with Sections 8001.16.7.1, 8001.16.7.3, and the outside storage requirements of Section 8003.3.2.
- V-300-2.94 Section 8001.16.7.3.2 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.7.3.2** General. Persons responsible for a facility where there is exterior storage of any regulated materials shall comply with Title II, Chapter 3, Building Code of the Milpitas Municipal Code.
- V-300-2.95 Section 8001.16.7.4 is hereby added to the California Fire Code, 1998 Edition, to read as follows:

8001.16.7.4 Indoor Use.

- V-300-2.96 Section 8001.16.7.4.1 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.7.4.1 Exempt Amounts**. Indoor use of moderately toxic gases in excess of 20 cubic feet per area bounded by not less than a one-hour fire resistive occupancy separation shall be in accordance with Sections 8001.16.7.1 and 8001.16.7.2, and 8001.16.7.4.
- V-300-2.97 Section 8001.16.7.4.2 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.7.4.2 Inert Gas Purge System**. Gas systems for regulated materials shall be provided with individually dedicated inert gas purge systems. A dedicated inert gas purge system may be used to purge more than one gas, provided the gases are compatible. Purge gas systems shall be located in an approved gas cabinet unless the system operates by vacuum demand.
- V-300-2.98 Section 8001.16.7.5 is hereby added to the California Fire Code, 1998 Edition, to read as follows:

8001.16.7.5 Outdoor Use

- V-300-2.99 Section 8001.16.7.5.1 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8001.16.7.5.1 Exempt Amounts**. Outdoor use of moderately toxic gases in excess of 20 cubic feet per outdoor area shall be in accordance with Sections 8001.16.7.1, 8001.16.7.3, 8001.16.7.4.2, and 8001.16.7.5.

V-300-2.100 Section 8001.17 is hereby added to the California Fire Code, 1998 Edition, to read as follows:

8001.17 Tank Cars and Piping. The provisions of this code shall not apply to tank cars which meet all requirements of the U.S. Department of Transportation, while such tank cars are used for the transportation and unloading of regulated material, as such terms are used in the Hazardous Materials Transportation Act, 49 U.S.C. Section 1801 et seq. "Unloading" does not include the use of tank cars to store regulated materials.

The provisions of this code shall apply to piping and control systems, automatic shut-off valves, emergency control stations, gas detection systems, treatment systems and alarm systems used with piping which connects tank cars to facilities from the unloading and delivery of regulated material, and to tank cars used to store regulated materials.

V-300-2.101 Section 8003.1.1 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:

8003.1.1 Applicability. Storage of hazardous materials where the aggregate quantity is in excess of the exempt amounts set forth in Section 8001.15 shall be in accordance with Sections 8001 and 8003.

Storage of hazardous materials where the aggregate quantity does not exceed the exempt amounts set forth in Section 8001.15 shall be in accordance with Section 8001. For highly toxic, toxic, and moderately gases, see also Sections 8001.16 and 8003.3.

For display and storage in retail and wholesale sales occupancies, see Section 8001.1

V-300-2.102 Section 8003.1.3.2 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:

8003.1.3.2 Spill control for hazardous materials liquids. Rooms, buildings or areas used for the storage of hazardous materials liquids shall be provided with spill control to prevent the flow of liquids to adjoining areas. Floors in indoor locations and similar surfaces in outdoor locations shall be constructed to contain a spill from the largest single vessel by one of the following methods:

- 1. Liquid-tight sloped or recessed floors in indoor locations or similar areas in outdoor locations.
- 2. Liquid-tight floors in indoor locations or similar areas in outdoor locations provided with liquid-tight raised or recessed sills or dikes, or
- 3. Sumps and collection systems.

Except for surfacing, the floors, sills, dikes, sumps and collection systems shall be constructed of noncombustible material, and the liquid-tight seal shall be compatible with the material stored. When liquid-tight sills or dikes are provided, they are not required at perimeter openings which are provided with an open-grate trench across the opening that connects to an approved collection system.

V-300-2.103 Section 8003.1.3.3 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:

8003.1.3.3 Secondary containment for hazardous materials liquids and solids. When required by the Chief, buildings, rooms or areas used for the storage of hazardous materials liquids or solids shall be provided with secondary containment in accordance with this section.

The building, room or area shall contain or drain the hazardous materials and fire-protection water through the use of one of the following methods:

- 1. Liquid-tight sloped or recessed floors in indoor locations or similar areas in outdoor locations.
- 2. Liquid-tight floors in indoor locations or similar areas in outdoor locations provided with liquid-tight raised or recessed sills or dikes,
- 3. Sumps and collection systems, or
- 4. Drainage systems leading to an approved location.

Incompatible materials shall be separated from each other in the secondary containment system.

Secondary containment for indoor storage areas shall be designed to contain a spill from the largest vessel plus the design flow volume of fire-protection water calculated to discharge from the fire-extinguishing system over the minimum required system design area or area of the room or area in which the storage is located, whichever is smaller, for a period of 20 minutes.

Secondary containment for outdoor storage areas shall be designed to contain a spill from the largest individual vessel. If the area is open to rainfall, secondary containment shall be designed to include the volume of a 24-hour rainfall as determined by a 25-year storm and provisions shall be made to drain accumulations of groundwater and rainwater.

A monitoring method shall be provided to detect hazardous materials in the secondary containment system. The monitoring method is allowed to be visual inspection of the primary or secondary containment, or other approved means. Where secondary containment is subject to the intrusion of water, a monitoring method for detecting water shall be provided. When monitoring devices are provided, they shall be connected to distinct visual or audible alarms.

Drainage systems shall be in accordance with the Plumbing Code and the following:

- 1. The slope of floors in indoor locations or similar areas in outdoor locations to drains shall not be less than 1 percent,
- 2. Drains from indoor storage areas shall be sized to carry the volume of the fire-protection water as determined by the design density discharged from the automatic fire-extinguishing system over the minimum required system design area or area of the room or area in which the storage is located, whichever is smaller.
- 3. Drains from outdoor storage areas shall be sized to carry the volume of the fire flow and the volume of a 24-hour rainfall as determined by a 25-year storm,
- 4. Materials of construction for drainage systems shall be compatible with the materials stored.
- 5. Incompatible materials shall be separated from each other in the drainage system, and
- 6. Drains shall terminate in an approved location away from buildings, valves, means of egress, fire access roadways, adjoining property and storm drains.
- V-300-2.104 Section 8003.1-A of the California Fire Code, 1998 Edition is amended to read in its entirety as follows:
 - TABLE 8003.1-A REQUIRED SECONDARY CONTAINMENT HAZARDOUS MATERIALS SOLIDS AND LIQUIDS STORAGE IS NOT ADOPTED.
- V-300-2.105 Section 8003.3.1.1 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **8003.3.1.1 General**. Indoor storage of toxic and highly toxic compressed gases in amounts exceeding exempt amounts set forth in Section 8001.15 shall be in accordance with Sections 8001.16.6, 8003.1, 8003.3.1, and 8003.3.3.

- V-300-2.106 Section 8003.3.1.3.1 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **8003.3.1.3.1 Ventilated Area**. Cylinders shall be stored within gas cabinets, exhausted enclosures or gas rooms.

Portable and stationary tanks shall be stored within gas rooms or exhausted enclosures. The room or area in which gas cabinets or exhausted enclosures are located shall be provided with exhaust ventilation that is independent of the ventilation required for gas cabinets and exhausted enclosures.

V-300-2.107 Section 8003.3.1.6 of the California Fire Code, 1998 Edition, is amended to read in its entirety:

Section 8003.3.1.6 Gas Detection. A continuous gas-detection system shall be provided to detect the presence of gas at or below the permissible exposure limit or ceiling limit. The detection system shall initiate a local alarm and transmit a signal to a constantly attended control station. The alarm shall be both visual and audible and shall be designed to provide warning both inside and outside of the storage area. The audible alarm shall be distinct from all other alarms.

The gas-detection system shall be capable of monitoring the room or area in which the gas is stored at or below the permissible exposure limit or ceiling limit and the discharge from the treatment system at or below one-half the IDLH limit.

- V-300-2.108 Section 8003.3.2.1 of the California Fire Code, 1998 Edition, is amended to read in its entirety:
 - **8003.3.2.1 General**. Outdoor storage of highly toxic, toxic, and moderately toxic compressed gases in amounts exceeding exempt amounts set forth in Section 8001.15 shall be in accordance with Sections 8003.1, 8003.3.2, 8003.3.3, and 8001.16.6.
- V-300-2.109 Section 8003.3.2.2.2 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **8003.3.2.2.2 Distance Limitation to Exposures**. Outdoor storage of highly toxic, toxic or moderately toxic compressed gases shall not be within 75 feet (22,860 mm) of a building, property line, street, alley public way or means of egress to a public way unless the storage is shielded by a structure have a minimum fire-resistive rating of two hours and which interrupts the line of sight between the storage and the exposure. The protective structure shall be a t least 5 feet (1524 mm) from exposures. The protective structure shall not have more than two sides at approximately 90-degree directions, or three sides with connecting angles of approximately 135 degrees.

EXCEPTION: Gases in gas cabinets complying with Section 8003.3.1.3.2 and located 5 feet (1524 mm) or more from buildings and 25 feet (7620) from means of egress. Section 8003.3.2.2.3 shall not apply.

- V-300-2.110 Section 8004.1.1 of the California Fire Code, 1998 Edition is amended to read in its entirety as follows:
 - **8004.1.1 Applicability**. Use, dispensing and handling of hazardous materials where the aggregate quantity is in excess of the exempt amount set forth in Section 8001.15 shall be in accordance with Sections 8001 and 8004.

EXCEPTION: for stationary lead-acid battery systems with individual batteries of 20 gallons (75.5L) or less and used for standby power, emergency power or uninterrupted power supply, see Article 64.

Use, dispensing and handling of hazardous materials where the aggregate quantity does not exceed the exempt amounts set forth in Section 8001.15 shall be in accordance with Section 8001. For flammable, oxidizing, pyrophoric, toxic, highly toxic, and moderately toxic gases, see also Section 8001.16.

For requirements pertaining to oxidizing cryogenic fluids, see UFC Standard 80-2. For requirements pertaining to flammable cryogenic fluids, see UFC Standard 80-3. For requirements pertaining to inert cryogenic fluids, see UFC Standard 80-4.

- V-300-2.111 Section 8004.2.2.5.1 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **8004.2.2.5.1 Spill control for hazardous materials liquids**. Buildings, rooms or areas where hazardous materials liquids are dispensed into vessels or used in open systems shall be provided with spill control in accordance with Section 8003.1.3.2.
- V-300-2.112 Section 8004.2.2.5.2 of the California Fire Code, 1998 Edition is amended to read in its entirety as follows:
 - **8004.2.2.5.2 Secondary containment for hazardous materials liquids**. When required by the Chief, buildings, rooms or areas where hazardous materials liquids are dispensed or used in open systems shall be provided with secondary containment in accordance with Section 8003.1.3.3.
- V-300-2.113 Section 8004.2.3.6.1 of the California Fire Code, 1998 Edition is amended to read in its entirety as follows:
 - **8004.2.3.6.1** Spill control for hazardous materials liquids. Buildings, rooms or areas where hazardous materials liquids are used shall be provided with spill control in accordance with Section 8003.1.3.2.
- V-300-2.114 Section 8004.2.3.6.2 of the California Fire Code, 1998 Edition is amended to read in its entirety as follows:
 - 8004.2.3.6.2 Secondary containment for hazardous materials liquids. When required by the Chief buildings, rooms or areas where hazardous materials liquids are used in vessels or systems shall be provided with secondary containment in accordance with Section 8003.1.3.3.
- V-300-2.115 Section 8004.3.4.1.1 of the California Fire Code, 1998 Edition is amended to read in its entirety as follows:
 - **8004.3.4.1.1 Spill control for hazardous materials liquids**. Outdoor areas where hazardous materials liquids are dispensed or used in open systems shall be provided with spill control in accordance with Section 8003.1.3.2.
- V-300-2.116 Section 8004.3.4.1.2 of the California Fire Code, 1998 Edition is amended to read in its entirety as follows:
 - **8004.3.4.1.2 Secondary containment for hazardous materials liquids.** When required by the Chief outdoor areas where hazardous materials liquids are dispensed or used in open systems shall be provided with secondary containment in accordance with Section 8003.1.3.3.
- V-300-2.117 Section 8004.3.4.2.1 of the California Fire Code, 1998 Edition is amended to read in its entirety as follows:
 - **8004.3.4.2.1** Spill control for hazardous materials liquids. Outdoor areas where hazardous materials liquids are used in closed systems shall be provided with spill control in accordance with Section 8003.1.3.2.
- V-300-2.118 Section 8004.3.4.2.2 of the California Fire Code, 1998 Edition is amended to read in its entirety as follows:
 - **8004.3.4.2.2 Secondary containment for hazardous materials liquids**. When required by the Chief outdoor areas where hazardous materials liquids are dispensed or used in closed systems shall be provided with secondary containment in accordance with Section 8003.1.3.3.
- V-300-2.119 Section 8004.2-A of the California Fire Code, 1998 Edition is amended to read in its entirety as follows:
 - TABLE 8004.2-A REQUIRED SECONDARY CONTAINMENT HAZARDOUS MATERIALS SOLIDS AND LIQUIDS USE IS NOT ADOPTED.
- V-300-2.120 Section 8004.1.1 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:

8004.1.1 Applicability. Use, dispensing and handling of hazardous materials where the aggregate quantity is in excess of the exempt amount set forth in Section 8001.15 shall be in accordance with Sections 8001 and 8004.

Use dispensing and handling of hazardous materials where the aggregate quantity does not exceed the exempt amounts set forth in Section 8001.15 shall be in accordance with Section 8001. For flammable, oxidizing, pyrophoric, toxic, and highly toxic gases, see also Section 8001.16.

- V-300-2.121 Section 8004.1.17 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **8004.1.17** Emergency Alarm. An emergency alarm system shall be provided, and installed in accordance with section 8003.1.10.
- V-300-2.122 Section 8204.2 of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **8204.2 Maximum Capacity Within Established Limits**. Within the City of Milpitas, the aggregate capacity of any one installation shall not exceed a 2,000 gallon water capacity.
- V-300-2.123 Section 9001.4 is hereby added to the California Fire Code, 1998 Edition, to read as follows:
 - **9001.4 Guidelines**. The Chief may prepare "Guidelines" to serve as an interpretation of the requirements of this Code, copies of which shall be kept in the office of the Fire Department for distribution to the public.
- V-300-2.124 Section 16.3 is hereby added to the California Fire Code, 1998 Edition, Appendix II-A to read as follows:
 - **16.3** When brush or vegetative growth is removed and cleared away to provide a firebreak as required in this section, suitable growth which will not form a means of rapidly transmitting fire shall be planted in such a manner so as to reduce the possibility of erosion.
- V-300-2.125 Section 25 is hereby added to the California Fire Code, 1998 Edition, Appendix II-A to read as follows:

SECTION 25-WATER SUPPLY

Any dwelling located more than 500 feet from a hydrant is considered to be without adequate piped water supply for fire protection. Such dwelling must be supplied with a gravity or pressurized water supply system with a 2-1/2-inch standard fire connection that will deliver a minimum of 200 gallons per minute for 20 minutes. Plans for said water system or any alternate system must be submitted and approved by the Chief prior to issuance of building permit for dwelling.

EXCEPTION: Existing dwellings.

V-300-2.126 Section 26 is hereby added to the California Fire Code, 1998 Edition, Appendix II-A to read as follows:

SECTION 26-AUTOMATIC FIRE SPRINKLER SYSTEMS.

All occupancies constructed hereafter in that portion of the hillside area designated as a hazardous fire area, as identified by the Fire Departments Hazardous Fire Area Map, shall have installed an automatic fire sprinkler system meeting the minimum Life Safety requirements for dwellings as specified in the National Fire Protection Association Codes and Standards.

- V-300-2.127 Section 4.1 of Appendix II-F of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:
 - **4.1 General**. Protected aboveground tanks shall be listed and shall meet the requirements specified in UFC Standard 79-7, UL 2085 and shall be labeled accordingly.
- V-300-2.128 Section 4.3 of Appendix II-F of the California Fire Code, 1998 Edition, is amended to read in its entirety as follows:

- **4.3 Size**. Primary tanks shall not exceed a 2,000-gallon individual or 6,000-gallon aggregate capacity.
- V-300-2.129 Section 6.5 is hereby added to the California Fire Code, 1998 Edition, Appendix II-F to read as follows:
 - **6.5 Dispensing Personnel**. Dispensing shall be conducted by trained employees of the permittee, into vehicles and equipment of the permittee.
- V-300-2.130 Last paragraph of Appendix V-A is hereby added to the California Fire Code, 1998 Edition, to read as follows:

Any other standard which is acceptable to the authority having jurisdiction.

Section 3 REPEAL OF CONFLICTING ORDINANCES.

Upon adoption of each new Fire Code, as amended, the previously adopted Fire Code is superseded in its entirety.

Section 4 PUBLICATION AND EFFECTIVE DATE

Pursuant to the provisions of Government Code Section 36933, Summary of this Ordinance shall be prepared by the City Attorney. At least five (5) days prior to the Council meeting at which this ordinance is scheduled to be adopted, the City Clerk shall (1) publish the Summary, and (2) post in the City Clerk's Office a certified copy of this Ordinance. Within fifteen (15) days after the adoption of this Ordinance, the City Clerk shall (1) publish the Summary, and (2) post in the City Clerk's Office a certified copy of the full text of this Ordinance along with the names of those City Council members voting for and against this ordinance or otherwise voting. This ordinance shall become effective thirty days from and after its adoption.

Section 5 SEVERABILITY

The City Council declares that, should any provision, section, paragraph, I sentence, or word of this amendment be rendered or declared invalid by a court of competent jurisdiction or by reason of any preemptive legislation, the remaining provisions, sections, paragraphs, sentences or words of said chapter hereby adopted shall remain in full force and effect.